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09/655,929	09/06/2000	Garland Stephens	8224.002.NPUS00	8518

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EXAMINER
NGUYEN, NGA B

ART UNIT	PAPER NUMBER
3692	

MAIL DATE	DELIVERY MODE
07/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/655,929	STEPHENS ET AL.
	Examiner	Art Unit	
	Nga B. Nguyen	3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>16 April 2009</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-3,12 and 25-28</u> is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-3,12 and 25-28</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a) ☐ All   b) ☐ Some * c) ☐ None of:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date <u>6/5/09</u>.
4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April

16, 2009 has been entered.

2.   Claims 1-3, 12, and 25-28 are pending in this application.

Response to Arguments/Amendment

3.   Applicant's arguments with respect to claims 1-3, 12, and 25-28 have been fully

considered but are moot in view of new ground of rejection.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent therefor,
> subject to the conditions and requirements of this title.

5.   Claims 1-3, 12 and 25-28 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

        Claims 1-3 and 25-27 are rejected under 35 U.S.C. 101 because they recite "A

system" defined merely by software. The body of the claims does not comprise any

machine or apparatus. The recitations (storage media, processor) have not been given

patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claims 12 and 28 are rejected under 35 U.S.C. 101. Based on Supreme Court precedent and recent Federal Circuit decisions, the Office's guidance to examiners is that a § 101 process must (1) be tied to a machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. In re Bilski et al, 88 USPQ 2d 1385 CAFC (2008); Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780,787-88 (1876).

An example of a method claim that would <u>not</u> qualify as a statutory process would be a claim that recited purely mental steps. Thus, to qualify as a § 101 statutory process, the claim should positively recite the other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

Here, applicant's method steps fail the first prong of the new Federal Circuit decision since they are not tied to a machine and can be performed without the use of a

particular machine. Thus, claims 12 and 28 are non-statutory since they may be

performed within the human mind.

The mere recitation of the machine in the preamble with an absence of a

machine in the body of the claim fails to make the claim statutory under 35 USC 101.

Note the Board of Patent Appeals Informative Opinion Ex parte Langemyer et al.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious
> at the time the invention was made to a person having ordinary skill in the art to which said
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention
> was made.

7.   Claims 1-3, 12, and 25-28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Wellman, U.S. Patent No. 6,952,682, in view of May, U.S. Patent No.

6,317,727.

        Regarding to claim 1, Wellman discloses a system for determining a linear

combination of structured flow having a net present value of substantially zero

comprising: a digital information storage medium, the medium further comprising data

representing processor instructions that operate on data corresponding to a graph

having at least one node and produce data representing the maximum flow for the

graph (*column 9, line 18-collulmn 12, line 67, matching bids between buyers and sellers using the shortest path algorithm; figure 8, a graph includes buyer nodes, seller nodes and an edge links between each buyer node and seller node*).

Wellman does not disclose cash flow exchanges and a least one node corresponding to at least one swap. However, May discloses cash flow exchanges and swap transaction (*column 9, lines 5-45, matching bids and offers based on matching criteria which includes the gross counterparty credit limit between counterparties to a potential matching transaction, price, and available quantity; column 18, lines 3-40, column 20, lines 5-65, swap transactions*). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Wellman's to incorporate the features taught by May above, for the purpose of finding the perfect matching counterparties in swap transactions.

Regarding to claim 2, Wellman discloses a system for determining a linear combination of structured flow having a net present value of substantially zero comprising: a digital information storage medium, the medium further comprising data representing processor instructions that operate on data corresponding to a graph having at least one node and produce data representing the minimum cut of the graph (*column 9, line 18-collulmn 12, line 67, matching bids between buyers and sellers using the shortest path algorithm; figure 8, a graph includes buyer nodes, seller nodes and an edge links between each buyer node and seller node*).

Wellman does not disclose cash flow exchanges and a least one node corresponding to at least one swap. However, May discloses cash flow exchanges and swap transaction (*column 9, lines 5-45, matching bids and offers based on matching criteria which includes the gross counterparty credit limit between counterparties to a potential matching transaction, price, and available quantity; column 18, lines 3-40, column 20, lines 5-65, swap transactions*). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Wellman's to incorporate the features taught by May above, for the purpose of finding the perfect matching counterparties in swap transactions.

Regarding to claim 3, Wellman discloses a system for determining a linear combination of transactions, comprising one or more digital information storage media, the one or more media further comprising data representing instructions for:

adding information corresponding to a node to a data structure corresponding to a graph;

querying one or more data sources for one or more transaction that at least partially match the requirements of the possible transaction corresponding by the node;

adding information to the data structure corresponding to a second node, the second node corresponding to at least one transaction at least partially matching the query requirements;

adding information to the data structure corresponding to an arc from the node to one or more nodes corresponding to transactions that at least partially match the requirements of possible the transaction represented by the node;

determining one or more values corresponding to the maximum flow on the graph.

(See *column 9, line 18-collulmn 12, line 67, matching bids between buyers and sellers using the shortest path algorithm; figure 8, a graph includes buyer nodes, seller nodes and an edge links between each buyer node and seller node*).

Wellman does not disclose cash flow exchanges and a least one node corresponding to at least one swap. However, May discloses cash flow exchanges and swap transaction (*column 9, lines 5-45, matching bids and offers based on matching criteria which includes the gross counterparty credit limit between counterparties to a potential matching transaction, price, and available quantity; column 18, lines 3-40, column 20, lines 5-65, swap transactions*). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Wellman's to incorporate the features taught by May above, for the purpose of finding the perfect matching counterparties in swap transactions.

Regarding to claim 12, Wellman discloses a method for determining a set of structured cash flows for exchange, comprising:

establishing in one or more memories a data structure corresponding to a graph having nodes corresponding to a collection of at least partial exchange definitions (*column 9, line 18-collulmn 12, line 67, matching bids between buyers and sellers using the shortest path algorithm; figure 8, a graph includes buyer nodes, seller nodes and an edge links between each buyer node and seller node*);

a portion of the data structure corresponding to at least on edge between exchange definitions having at least partially compatible terms (*figure 8, a graph includes buyer nodes, seller nodes and an edge links between each buyer node and seller node)*;

the at least partially compatible terms including *at least one of: an underlying*, a start date, an end date, a variance (*column 4, lines 1-12, a multi-attribute bid includes a price, qualify characteristics, the time and location of delivery).*

determining data corresponding to a linear combination of edges corresponding to a maximum notional amount for the graph with respect to one or more exchange definitions (*figure 9 and column 10, lines 17-55, the maximal weighted matching includes edges such that the combination of the best matches between buyers and sellers results in a highest overall surplus).*

Wellman does not disclose cash flow exchanges and a least one node corresponding to at least one swap. However, May discloses cash flow exchanges and swap transaction (*column 9, lines 5-45, matching bids and offers based on matching criteria which includes the gross counterparty credit limit between counterparties to a potential matching transaction, price, and available quantity; column 18, lines 3-40, column 20, lines 5-65, swap transactions).* Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Wellman's to incorporate the features taught by May above, for the purpose of finding the perfect matching counterparties in swap transactions.

Claims 25-28 contain similar limitations found in claims 1-3 and 12 above, therefore, are rejected by the same rationale.

Conclusion

8.   Claims **1-3, 12, and 25-28** are rejected.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Nga B. Nguyen whose telephone number is (571) 272-6796. The examiner can normally be reached on Monday-Thursday from 9:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on (571) 272-6702.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3600.

10.   Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to:

(571) 273-8300 (for formal communication intended for entry),

or

(571) 273-6796 (for informal or draft communication, please label

"PROPOSED" or "DRAFT").

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nga B. Nguyen/
Primary Examiner, Art Unit 3692

July 1, 2009